

This experiment consists of transmitting a narrowband chirp from a transmit location:

- MITRE
202 Burlington Rd.
Bedford Ma. 01730
North 42 30 19 West 71 14 5

Towards a receive location at:

- 4th Cliff
Scituate Ma. 02050
42° 9'43.67"N 70°42'22.99"W

The transmit waveform consists of a 1 MHz wide chirp at an 80% duty cycle centered at 5.65 GHz with a 3 kHz PRF (Note: May be centered at one of the other center frequencies requested in this application). The ERP of the transmitter will be 251kW using the Dish detailed in Exhibit 4, with a 3.3° 3dB beam Vertical and Horizontal

Exhibit 1: Transmit Path

- Map overlay of the origin point of the transmitter, and the direction in which it will be pointed, as well as the intended location of the receiver.

Exhibit 2: Spectral Shape

- This is the shape of the transmit waveform in the spectral domain (at reduced power). The waveform consists of a 1 MHz wide chirp at an 80% duty cycle at 5.65 GHz with a 3 kHz PRF.

Exhibit 3: Dish Located on Building

- This is a picture of the building which the transmitter is mounted to. The approximate mounting location is circled in red. This building is located at:
- MITRE
202 Burlington Rd.
Bedford Ma. 01730
North 42 30 19 West 71 14 5

Exhibit 4: Dish

- Picture of transmit antenna "Dish" that will be used with all specifications shown in photo.
- Relevant specs: 34dBi maximum gain at this frequency. Transmitter power fed into Dish is 100W.

Exhibit 5: Detailed Experiment Diagram

- Summary of experiment with all relevant details shown in picture